



HHS PUBLIC ACCESS

Author manuscript

Am J Health Promot. Author manuscript; available in PMC 2015 July 01.

Published in final edited form as:

Am J Health Promot. 2013 ; 27(3 0): S1–S3. doi:10.4278/ajhp/27.3.c1.

Effective Strategies for Promoting Preconception Health—From Research to Practice

Elizabeth W. Mitchell, PhD and

National Center on Birth Defects and Developmental Disabilities, Division of Birth Defects and Developmental Disabilities, Prevention Research Branch, National, Atlanta, Georgia

Sarah Verbiest, DrPH, MSW, MPH

Center for Maternal and Infant Health, University of North Carolina at Chapel Hill

The development and publication of this supplement of the *American Journal of Health Promotion* have provided an opportunity to connect with new partners in the field of preconception health education, assess the current state of the science on this topic, and note gaps in research that we hope readers will consider filling. As guest editors, we appreciate our colleagues who submitted articles for consideration, the guest reviewers for their time and willingness to serve, and the journal staff for their flexibility and support throughout the process. This supplement serves as a platform to elevate contributions made in the context of preconception health promotion since 2006 as well as to issue a call to action to expand the work being done in this important arena.

Six years ago, in partnership with over 35 national organizations and hundreds of partners, a select panel of experts on preconception health issued a series of 4 goals, 10 recommendations, and over 40 action steps focused on improving the health and well-being of women and men of childbearing age.¹ The recommendations addressed a number of domains, including consumer education, clinical care, advocacy and policy, research, and public health and community interventions. A complete list of the recommendations and action steps is included in the online version of this article (<http://www.cdc.gov/mmwrR/preview/mmwrhtml/rr5506a1.htm>). Four national workgroups were created to move this agenda forward based on these different domains. To catalyze action in the context of consumer education and health promotion, the National Preconception Health Consumer Workgroup was formed. A main charge of the consumer workgroup continues to be to improve the knowledge, attitudes, and behaviors of men and women related to preconception health by using information that is relevant across various age groups, literacy levels, and cultural and ethnic groups.¹ This journal issue on preconception health focuses mainly on women's preconception health and is one example of the consumer workgroup's efforts.

In the context of women, preconception health refers to the health of a woman of childbearing age prior to or between pregnancies. The purpose of preconception care is to identify and modify biomedical, behavioral, and social risks to a woman's health¹ in order to

maximize her health as well as that of any babies she may have in the future. Increasing awareness, knowledge, and engagement in preconception health practices among women and their partners are important objectives. Data suggest that pregnancy intentions can improve birth outcomes.² Given the high infant mortality rates in the United States, particularly as compared to 28 other countries with better birth outcomes, this work is essential.³ Preconception health is unique as it is comprised of numerous components, including lifestyle (i.e., healthy weight, physical activity, smoking, drinking, substance use), screenings and vaccination (i.e., sexually transmitted infections, human immunodeficiency virus, rubella), and chronic disease management (i.e., diabetes, hypertension), along with family planning and exposure to teratogens, to name a few. Mass communication and clinician intervention about preconception health are challenging because of the volume of health topics within this issue and in light of the fact that half of all pregnancies are unplanned.⁴ Ultimately, a key task of the preconception health movement is to change social norms about the importance of the health of women and men and the impact it can have on their future reproductive goals.

Formative research, education campaigns, and interventions on single health topics among women of childbearing age are well documented in the literature.^{5–13} However, less is known about how to effectively bundle and deliver a preconception health “package” to consumers in a way that resonates with them and motivates them to take action. One goal of this supplement is to inform this dialogue. In soliciting the content for this issue, we were particularly interested in preconception health audience research, advances in message development and dissemination strategies, and innovations in public and private partnerships, as well as insight into improving the preconception health of at-risk populations.

A critical step in the process of developing and disseminating health promotion messages is to conduct audience research. Squiers et al. describe the formative research undertaken to identify and understand women's perceptions of preconception health. Research by Lewis et al. describes couples' notions about preconception health. Results from these studies have informed the development of preconception health message and promotion strategies that will be applied to a national social marketing effort.

As described previously, there are many preconception components that need to be shared with consumers. To inform this discussion, the article by King et al. describes message bundling research to assess the number of preconception health messages women could recall at the same time. Message tailoring strategies are an important part of consumer materials development as well. Levis et al. summarize the results of a content analysis of preconception health education materials in order to provide guidance to practitioners about materials development. Gardiner et al. offer insight into the use of a computer-based preconception care system that provides women with tailored education through a virtual patient advocate named Gabby. The findings of these studies provide practitioners with insight into how to craft and disseminate audience-centered messages.

Another domain of interest for this supplement is innovative public-private partnerships reaching women of childbearing age. The commentary on the text4baby program offers an

excellent example of a national effort to reach pregnant women and new mothers with health messages. Although this work has yet to expand to preconception health, the approach and partnership are innovative and model the potential that mobile technology can offer.

Understanding how to reach at-risk women of childbearing age with preconception care is very important. The first article by Dunlop et al. assesses the acceptability and impact of reproductive and preconception health risk assessment and counseling in Women, Infants, and Children locations. In a second article, Dunlop et al. report on the impact of targeted brief counseling on women's knowledge of preconception health risks in publicly funded primary care settings. Adams et al. describe the impact of public policy expansions through California's family planning waiver on the receipt of preventive and reproductive health services. Bombard et al. report on the 2009 Behavioral Risk Factor Surveillance System data that describe opportunities for health care providers influence on lifestyle changes for women who have hypertension.

Finally, this issue describes several promising practices that reach special populations in the context of their communities. These include the work of Dixon-Gray et al. and Torres et al., whose initiatives focus on providing culturally appropriate preconception health education and outreach to Latinas in Oregon and South Carolina. Handler et al. report on the lessons learned from an extensive longitudinal interconceptional care program in Chicago that integrated social services, family planning, and medical care to meet the unique needs of women in diverse health care settings. Hogan et al. discuss the findings from their ethnographic study of African-American women in Philadelphia in order to share insight into the social context, preconception health, illness, and well-being of study participants. The study by Hanson et al. describes an evaluation of an intervention to prevent alcohol-exposed pregnancies among American Indian women.

We hope this supplement on preconception health provides a catalyst for continued strategic thinking, research, and publication on this important topic. If we are to improve women's health and birth outcomes, we must consider health and social systems issues, environmental impacts, and the reality of life today for young women, men, and mothers. We can't disregard the gap that exists between knowing and doing, nor can we ignore the challenges that many consumers face in actualizing their health goals. Further, we must acknowledge the significant inequities in health status and birth outcomes among different racial and ethnic groups. Women's lives are busy, complex, and filled with multiple demands. Offering guidance and information about healthy living, preconception care, and behavior risk reduction will be more effective when delivered within a context that focuses on the whole woman and considers barriers she may have to taking action. With this as the canvas, health care providers, policy makers, educators, public health leaders, and community leaders need to develop systems and supports that provide women with resources and tools to improve their health and well-being.¹⁴ There are educators and programs around the country working on preconception health. We urge them to continue to evaluate their work and publish their findings so that lessons learned and promising practices can be documented and applied by others in the field. Additionally, we call upon the research community to continue to examine gaps in audience research, message development and dissemination, and best

practice implementation of preconception health promotion to build the science required to move this work forward.

Looking to the future, the Preconception Health Consumer Workgroup, through its national, state, and local partners, remains committed to its call to action. In February 2013, the consumer workgroup will launch the “Show Your Love” campaign, which will target women of childbearing age 18–44. The campaign aims to increase awareness of preconception health in the context of a woman's pregnancy intentions as well as to underscore the importance of pregnancy planning should a woman wish to become pregnant. A suite of campaign tools and resources will be available for use by partners at www.cdc.gov/preconception. Clearly there is much work ahead if we are to collectively improve the health and wellness of our nation's mothers and babies. We hope the articles included in this issue, both in hard copy and online, are thought provoking and informative for your health promotion practices.

Acknowledgments

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

References

1. Centers for Disease Control and Prevention. Recommendations to improve preconception health and health care—United States: a report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *MMWR Morb Mortal Wkly Rep*. 2006; 55(RR-6):1–22. [PubMed: 16410759]
2. Shah PS, Balkhair T, Ohlsson A, et al. Intention to become pregnant and low birth weight and preterm birth: a systematic review. *Matern Child Health J*. 2011; 15:205–216.10.1007/s10995-009-0546-2 [PubMed: 20012348]
3. National Center for Health Statistics. Health, United States, 2007, With Chartbook on Trends in the Health of Americans. Hyattsville, Md: National Center for Health Statistics; 2007.
4. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspect Sex Reprod Health*. 2006; 38:90–96. [PubMed: 16772190]
5. Prue CE, Hammer HC, Flores AL. Effects of folic acid awareness on knowledge and consumption for the prevention of birth defects among Hispanic women in several U.S. communities. *J Womens Health*. 2010; 19:689–698.
6. Flores AL, Prue CE, Daniel KL. Broadcasting behavior change: a comparison of the effectiveness of paid and unpaid media to increase folic acid awareness, knowledge, and consumption among Hispanic women of childbearing age. *Health Promot Pract*. 2007; 8:145–153. [PubMed: 17003248]
7. Fischl A, DiNardo M, Herman W, Charron-Prochownik D. Social marketing of a preconception counseling interactive health technology: Reproductive-health Education and Awareness of Diabetes in Youth for Girls (READY-Girls). *Cases Public Health Commun Mark*. 2010; 4:131–153. Available at: www.casesjournal.org/volume4.
8. Blume AW, Resor MR. Knowledge about health risks and drinking behavior among Hispanic women who are or have been of childbearing age. *Addict Behav*. 2007; 32:2335–2339. [PubMed: 17324525]
9. Mengel MG, Ulione M, Wedding D, et al. Increasing FASD knowledge by a targeted media campaign: outcome determined by message frequency. *J Fetal Alcohol Syndr Int*. 2005; 3:e13. Available at: http://www.motherisk.org/JFAS_documents/JFAS5000_e13.pdf.
10. Ceperich SD, Ingersoll KS. Motivational interviewing + feedback intervention to reduce alcohol-exposed pregnancy risk among college binge drinkers: determinants and patterns of response. *J Behav Med*. 2011; 00:381–395.10.1007/s10865-010-9308-2 [PubMed: 21318412]

11. Floyd RL, Sobell M, Velasquez M, et al. Preventing alcohol-exposed pregnancies: a randomized controlled trial. *Am J Prev Med.* 2007; 32:1–10. [PubMed: 17218187]
12. Casele HL, Laifer SA. Factors influencing preconception control of glycemia in diabetic women. *Arch Intern Med.* 1998; 158:1321–1324. [PubMed: 9645826]
13. Collier SA, Mulholland C, Williams J, et al. A qualitative study of perceived barriers to management of diabetes among women with a history of diabetes during pregnancy. *J Womens Health (Larchmt).* 2011; 20:1333–1339.10.1089/jwh.2010.2676 [PubMed: 21740191]
14. Verbiest S, Holiday J. Preconception care: building the foundation for healthy women, babies and communities. *N C Med J.* 2009; 70:417–425. [PubMed: 19999521]